

NETWORKS

FAQ

Q Should I buy a Draft-N or an 802.11g router?

A Draft-N routers are more expensive than 802.11g models, which are dropping rapidly in price as more Draft-N routers appear on the market. For some people, 802.11g will provide more than enough throughput. If you're simply checking emails and browsing the internet, 802.11g will be sufficient at 10-15m from your router. Draft-N really comes into its own at longer distances, thanks to generally better coverage. It also provides faster throughput at close ranges.

If you have several computers sharing the same wireless network, then 802.11g bandwidth could easily be eaten up, and Draft-N would be more suitable. Similarly, if you want to stream video wirelessly, Draft-N is a better choice and is the only standard that can handle high-definition video.

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TRENDNET TEW-633GR

★★★★

£117 inc VAT

From www.trendnetdirect.co.uk

Trendnet has clearly learned from its past brash designs. The company's latest Draft-N router is a much more stylish affair than previous models. The three antennas on the side are fixed to the router, so you can't replace them with high-gain versions as you can with routers that use the standard reverse SMA connections.

The TEW-633GR is squarely aimed at gamers, and has the StreamEngine QoS as used by D-Link's DIR-655 and other Trendnet routers. This means you don't have to change complex settings to prioritise gaming traffic over non-time-critical data such as downloads or simple web browsing.

The router is incredibly simple to set up thanks to the installation wizard, which explains how to connect the router in layman's terms and then gives you simple options for naming your network and choosing security settings (WEP, WPA and WPA2). The whole process takes around 10 minutes, and there's a printed manual in case you get stuck.

We tested the router with our Centrino laptop's built-in wireless adaptor first, and got some reasonable results: 18.92Mbit/s at 1m and 16.5Mbit/s at 10m. The throughput of 8.38Mbit/s at 25m was impressive, though and, along with D-Link's 1353 (opposite), it's one of the fastest transfer rates we've seen at this range over 802.11g.

When we switched to Trendnet's own TEW-612PC CardBus adaptor (£70) we expected fast throughputs. However, we were a little disappointed by the 9.21Mbit/s at 25m, which was only a marginal improvement. There was



also a slight boost at 1m, but throughput was slower at 10m. With such a small difference between our Centrino notebook and Trendnet's own CardBus adaptor, it's impossible to recommend spending £70 on each computer that needs to connect wirelessly.

We couldn't find many reasons to justify the steep £117 price, either. There's a four-port Gigabit Ethernet switch, which is useful for speeding up file transfers if your PCs, notebooks and any network storage devices have matching adaptors. There's no built-in ADSL modem, though, so you'll need to provide your own Ethernet modem if you have an ADSL broadband connection.

The other problem is that the TEW-633GR is outperformed by Belkin's similar N1 Vision (*What's New, Shopper* 239), which costs £16 less. The Vision also has the benefit of its handy display. However, if you don't need Gigabit Ethernet but you do need an ADSL modem then Linksys's WAG325N (see 'Also consider...', below) is a terrific Draft-N router and it costs only £80 including VAT.

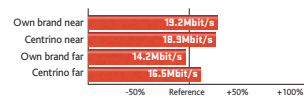
Matt Smith

SUMMARY

- ✓ Very simple to set up
- ✗ Poor Draft-N speeds
- ✗ Expensive

WIRELESS ROUTER Draft 802.11n (300Mbit/s), 4x Gigabit ports, Gigabit WAN port, UPnP, QoS
PART CODE TEW-633GR
DETAILS www.trendnetdirect.co.uk

PERFORMANCE (see page 66)



Also consider...

BUFFALO WBMR-G125

★★★★★

£48 inc VAT

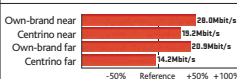
From www.lambda-tek.com/componentshop



It may be 802.11g, not Draft-N, but the Buffalo WBMR-G125 provides fantastic speeds for a very low price. It's also simple to configure, taking just a few minutes. The Buffalo CardBus adaptor will improve your speeds further and costs a mere £18 extra. Its throughput at 25m also rivals some more expensive Draft-N routers.



WIRELESS ROUTER 802.11g (125Mbit/s), 4x 10/100 Ethernet ports, WAN Port (ADSL2+ modem), UPnP, QoS
PART CODE WBMR-G125
DETAILS www.buffalotech.com
FULL REVIEW Nov 2007



LINKSYS WAG325N Wireless-N ADSL Gateway

★★★★★

£77 inc VAT

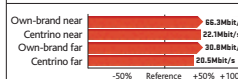
From www.lambda-tek.com/componentshop



Linksys's WAG325N Wireless-N ADSL Gateway managed the fastest transfer rates we've ever seen from wireless kit in our tests, and its range was excellent, too. Centrino performance was equally impressive, and we had no trouble connecting at 25m. This router was simple to set up and configure, and it's excellent value.



WIRELESS ADSL ROUTER Draft 802.11n (300Mbit/s), 4x 10/100 Ethernet ports, WAN port (ADSL2+ modem), UPnP, QoS
PART CODE WAG325N
DETAILS www.uk.linksys.com
FULL REVIEW Sep 2007



D-LINK Rangebooster 1353

★★★★★

£88 inc VAT

From www.lambda-tek.com/componentshop

D-Link's Rangebooster 1353 might look like a normal wireless router, but it's a Draft-N 2.0 wireless access point.

You can put it to various uses, depending on your needs. You can use it as a simple access point, connecting it to an existing wired router or switch to add Draft-N wireless capabilities to your network. Alternatively, it can act as a WDS bridge, so you can create building-to-building networks. A combination of the two modes allows wireless devices to connect to the WDS link, while a fourth mode allows it to act as a wireless repeater to boost the range of your wireless network.

The 1353 is also backward-compatible with 802.11b/g devices and operates a 'good neighbour' policy, where it tries to create as little interference as possible for other 802.11g networks in the area.

Installation is as simple as we've come to expect from D-Link. A wizard takes you through configuring the SSID, password and the



type of encryption you want. It supports WEP, WPA and WPA2 security.

We tested the 1353 with our Centrino notebook first. Throughput was average at 1m and 10m, but it managed 9.86Mbit/s at 25m, showing excellent signal coverage. It managed to retain a connection with D-Link's own USB adaptor up to around 30m, providing a transfer rate of 2Mbit/s. Things dramatically improved at our very far range of 25m, with a rate of 11.75Mbit/s, which is more than fast enough for standard definition video.

If you need to extend your wireless coverage, D-Link's Rangebooster 1353 may sound expensive at £88, but it's a cheaper alternative to Devolo's Wireless Extender kit (*What's New, Shopper* 237), which provides only 802.11g speeds and costs around £20 more.

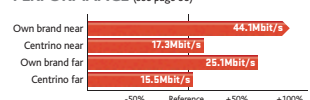
Matt Smith

SUMMARY

- ✓ Extends your wireless network range
- ✓ Decent throughput
- ✗ Relatively expensive

WIRELESS ACCESS POINT/BRIDGE Draft
802.11n, 10/100 Ethernet port
PART CODE DAP-1353/B
DETAILS www.dlink.co.uk

PERFORMANCE (see page 66)



SWEEX MO200UK

★★★★★

£29 inc VAT

From www.lhdigital.co.uk

The MO200UK is the first wireless 802.11g router with a built-in ADSL2+ modem we've seen for less than £30. It's not the most attractive router around, but it comes with a three-year warranty.

Installation was unnecessarily complicated, and wasn't helped by the lack of a printed manual. The setup wizard doesn't take you through entering your ISP details, which needs to be done first.

The front panel has a series of LEDs, which show whether you have a wireless connection, the status of the ADSL line and activity that's occurring between your computer and the router. There's one antenna on the back of the unit. This has a standard fitting, so you could replace it with a high-gain aerial.

As well as wireless networking, there are four 10/100 Ethernet ports for connecting wired devices. It supports WEP, WPA and WPA2 security. It's no surprise that quality of service isn't built in, but it is UPnP-compatible.

The MO200UK achieved a throughput of 17.49Mbit/s at 10m, and a disappointing



16.9Mbit/s at close range with our Centrino laptop. However, we couldn't get a connection at 25m, which is most likely down to the antenna.

With average performance and disappointing coverage, the MO200UK doesn't challenge Buffalo's WBM-R-G125 ADSL2+ router (see 'Also consider...', left). This might cost £19 more, but it's far easier to set up, and includes Buffalo's AOSS technology, which creates secure wireless connections at the touch of a button. It also has a burst mode that boosts speeds to a theoretical 125Mbit/s, and the matching CardBus adaptors are easily affordable at under £20. The only reason to opt for the MO200UK is if you need a basic wireless router for a very low price and don't need more than 10m of wireless coverage. Only in those circumstances is it good value.

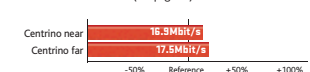
Matt Smith

SUMMARY

- ✓ Affordable
- ✗ Poor coverage
- ✗ Complicated installation

WIRELESS ADSL ROUTER 802.11g
(54Mbit/s), 4x 10/100 Ethernet ports,
WAN port (ADSL2+ modem), UPnP
PART CODE MO200UK
DETAILS www.sweex.co.uk

PERFORMANCE (see page 66)



CHOOSING A... Wireless Router

Follow the steps to find your ideal specs

STANDARD: 802.11g (54Mbit/s)

ETHERNET PORTS: 4

BROADBAND CONNECTION: Ethernet WAN port
Recommended minimum in grey

1 A basic wireless router with the specifications above will cost around £25. As a standard 802.11g wireless router, it is quick enough to share an internet connection, but a little slow for file sharing. It doesn't have a built-in modem, so you'll have to use it with an existing broadband modem that has an Ethernet port.

2 If you have ADSL, get a wireless router that has a built-in ADSL modem. This will cost you more than a standard router, but lets you connect your router directly to your broadband connection without a separate external modem. Try to get a router with an ADSL2+ modem, as this will support broadband connections up to 24Mbit/s with an appropriate ISP.

3 Want to share large wireless files over your network? You'll need to upgrade to a MIMO or Draft-N router. MIMO routers are usually WiFi compliant and will get you transfer speeds of around 30Mbit/s. Draft-N routers are faster still, but as they're pre-standard you may have problems getting them working with kit in the future. Both MIMO and Pre-N routers need matching network adaptors to run at full speed.

4 If you're having problems getting a wireless signal in your house, a MIMO or pre-N router can help. Alternatively, look to buy a hi-gain antenna for your router. This will boost the signal and improve throughputs and ranges to the whole of the house. You can also look into adding a hi-gain antenna to a PC's network adaptor.

5 If you've got a printer you want to share on your network, look for a wireless router with a built-in USB port and print server. Don't worry if you can't find one that matches your other requirements, though, as you can always add a dedicated wireless print server later on. Finally, if you're interested in making voice calls using a SIP connection, look for a router with built-in VoIP support as this can save you money.